

Commonwealth of Kentucky
Division for Air Quality
EXECUTIVE SUMMARY

FINAL

Title V / Synthetic Minor, Construction / Operating

Permit: V-07-039

Stanton Compressor Station

Stanton, KY 40380

March 10, 2008

Luis D. Fuentes, Reviewer

SOURCE ID: 21-197-00006

AGENCY INTEREST: 44369

ACTIVITY: APE20070002

SOURCE DESCRIPTION:

Columbia Gulf Transmission Company owns a compressor station in Stanton, Powell County, KY. Stanton Natural Gas Transmission Station receives natural gas via pipeline or from the storage facility and compresses, or transmits, the natural gas for transport to other locations via pipeline.

Equipment at this station includes:

Four natural gas reciprocating engines (Cooper-Bessemer LSV-16, 4 stroke lean burn);

One natural gas turbine & compressor (Pratt & Whitney GC3C-1);

One natural gas-fired turbine (Solar Mars 100-T15000S); and

One engine generator (660 HP-4 cycle engine).

The Stanton compressor station of Columbia Gulf Transmission currently operates under the authority of the General Permit Title V Operating Permit G-04-001 Revision 1. Permit No. V-07-039 is a single-source Title V permit being issued to this facility since a synthetic minor permit is necessary for this source. The original permit application for the natural gas-fired Solar Mars 100 turbine, emission unit 08 (EP 108), was based on manufacturer guaranteed minimum power output at an ambient temperature of 0° F and did not address turbine emissions during very cold weather (ambient temperature <0° F), during turbine startups/ shutdowns, and during periods of low load operation (transience shifts, <50% load and/or <90% NGP speed). At these operating conditions, CO and VOC emissions are higher than during normal operation. Potential emissions, based on the new operating condition information, are above the prevention of significant deterioration of air quality (PSD) significant emissions increase level. Therefore, the facility has requested synthetic minor limits to preclude the applicability of PSD.

U.S. EPA REVIEW:

The U.S. EPA was notified of the issuance of the proposed permit on November 06, 2007 via e-mail. The comment period expired 45 days from the date of e-mail. No comments were received during this period. The permit is now being issued final.